

# United States Patent and Trademark Office



UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.usplo.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.		
10/734,438	12/11/2003	Werner Juengling	MI22-2465 2033			
21567 7	590 12/29/2004		EXAMINER			
WELLS ST. J	OHN P.S. AVENUE, SUITE 1300	HOANG, QUOC DINH				
SPOKANE, W	•	ART UNIT	PAPER NUMBER			
			2818			
			DATE MAILED: 12/29/2004			

Please find below and/or attached an Office communication concerning this application or proceeding.

		Application No.	· [,	Applicant(s)				
Office Action Summary		10/734,438		JUENGLING, WERNER				
		Examiner		Art Unit				
		Quoc D Hoang		2818				
The MAILING DATE of this communication appears on the cover sheet with the correspondence address Period for Reply								
A SH THE I - Exter after - If the - If NO - Failu Any I	ORTENED STATUTORY PERIOD FOR REPLY MAILING DATE OF THIS COMMUNICATION. Insions of time may be available under the provisions of 37 CFR 1.13 SIX (6) MONTHS from the mailing date of this communication. In period for reply specified above is less than thirty (30) days, a reply operiod for reply is specified above, the maximum statutory period we re to reply within the set or extended period for reply will, by statute, reply received by the Office later than three months after the mailing and patent term adjustment. See 37 CFR 1.704(b).	36(a). In no event, however, within the statutory minimun ill apply and will expire SIX ( cause the application to bec	may a reply be timel n of thirty (30) days v 6) MONTHS from th come ABANDONED	ly filed will be considered timely the mailing date of this co (35 U.S.C. § 133).				
Status								
2a)	Responsive to communication(s) filed on <a href="mailto:11_becember 2003">11_becember 2003</a> .  This action is <b>FINAL</b> .  2b) This action is non-final.  Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.							
Disposition of Claims								
5)□ 6)⊠ 7)⊠	<ul> <li>4)  Claim(s) 33-41 is/are pending in the application.</li> <li>4a) Of the above claim(s) is/are withdrawn from consideration.</li> <li>5)  Claim(s) is/are allowed.</li> <li>6)  Claim(s) 34,36,37 and 40 is/are rejected.</li> <li>7)  Claim(s) 35,38,39 and 41 is/are objected to.</li> <li>8)  Claim(s) are subject to restriction and/or election requirement.</li> </ul>							
Applicati	on Papers							
<ul> <li>9) The specification is objected to by the Examiner.</li> <li>10) The drawing(s) filed on is/are: a) accepted or b) objected to by the Examiner.  Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).</li> <li>11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.</li> </ul>								
Priority u	ınder 35 U.S.C. § 119		•					
<ul> <li>12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).</li> <li>a) All b) Some * c) None of:</li> <li>1. Certified copies of the priority documents have been received.</li> <li>2. Certified copies of the priority documents have been received in Application No</li> <li>3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).</li> <li>* See the attached detailed Office action for a list of the certified copies not received.</li> </ul>								
2) Notice	t(s) e of References Cited (PTO-892) e of Draftsperson's Patent Drawing Review (PTO-948) mation Disclosure Statement(s) (PTO-1449 or PTO/SB/08) r No(s)/Mail Date 12-2003.	Pap 5) 🔲 Noti	rview Summary (F er No(s)/Mail Date ice of Informal Pat er:		)-152)			

Application/Control Number: 10/734,438 Page 2

Art Unit: 2818

#### **DETAILED ACTION**

## Response to Preliminary Amendment

1. Preliminary Amendment filed on 12/11/2003 has been entered. In Preliminary Amendment, applicants cancel claims 1-33. Claims 34-41 are pending in the application.

### Claim Objections

2. Claim 38 is objected to because of the following informalities: The limitation "the first dielectric sidewall spacer has an aspect ratio of twenty five or more" is not disclosed anywhere in specification or in any figures. Appropriate correction is required.

#### **Double Patenting**

3. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

4. Claims 33-41 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-16 of U.S. Patent No. 6,635,917. Although the conflicting claims are not identical, they are not patentably distinct from each other because both of them are directed to the same device.

Application/Control Number: 10/734,438

Art Unit: 2818

#### Claim Rejections - 35 USC § 102

Page 3

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

- (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.
- 6. Claims 34, 36, 37 and 40 are rejected under 35 U.S.C. 102(e) as being anticipated by Tseng (U.S. Pat No. 5,705,438).

Regarding claim 34, Tseng teaches a bit line contact comprising: a first dielectric sidewall spacer 24 formed in the an opening and coating an interior sidewall of the opening, the opening extending to a node 18B on a substrate 10 (col. 5, lines 32-55 and Fig. 7); a second dielectric sidewall spacer 26 formed in the opening and coating an interior sidewall of the first dielectric sidewall spacer 24 (col. 5, lines 32-55 and Fig. 7); and a conductive plug 38 formed within an interior sidewall of the second dielectric sidewall spacer 26 and extending through the opening to the node 18B (col. 7, lines 5-50 and Fig. 7).

Regarding claim 36, Tseng teaches wherein the conductive plug 38 comprises doped polysilicon (col. 7, lines 5-50 and Fig. 7).

Regarding claim 37, Tseng teaches wherein the contact is laterally surrounded by array of capacitors 28/30/32 (see Fig. 7).

Regarding claim 40, Tseng teaches wherein the second dielectric sidewall spacer 26 comprises silicon dioxide (col. 5, lines 32-55 and Fig. 7).

#### Allowable Subject Matter

- 7. Claims 35, 39 and 41 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
- 8. The following is a statement of reasons for the indication of allowable subject matter: None of the cited references or combinations thereof disclose or suggest wherein the first dielectric sidewall spacer is formed of a first material and the second dielectric sidewall spacer is formed of a second material having a lower relative dielectric constant than the first dielectric sidewall spacer as required by the presently claimed invention.

#### Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Quoc Hoang whose telephone number is (571) 272-1780. The examiner can normally be reached on Monday-Friday from 8.00 AM to 5.00 PM.

If attempt to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Nelms can be reached on (571) 272-1787. The fax phone numbers of the organization where this application or proceeding is assigned are (703) 872-9306 for regular communications and (703) 872-9306 for After Final communications.

Application/Control Number: 10/734,438

Art Unit: 2818

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Quoc Hoang

Patent examiner/AU 2818

MICHAELTRAN PRIMARY EXAMINER Page 5